

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 October 2004 (07.10.2004)

PCT

(10) International Publication Number
WO 2004/086033 A3

(51) International Patent Classification⁷: **G01N 33/566**

(21) International Application Number:
PCT/EP2004/002731

(22) International Filing Date: 17 March 2004 (17.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03006846.4 28 March 2003 (28.03.2003) EP

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:
14 July 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **DIAGNOSTICS AND THERAPEUTICS FOR DISEASES ASSOCIATED WITH ENDOTHELIAL DIFFERENTIATION, SPHINGOLIPID G-PROTEIN-COUPLED RECEPTOR 6(EDG6)**

(57) Abstract: The invention provides a human EDG6 which is associated with the cardiovascular disorders, gastrointestinal and liver diseases, inflammatory diseases, hematological disorders, respiratory diseases, neurological disorders, urological disorders, thrombocytopenia and myeloma. The invention also provides assays for the identification of compounds useful in the treatment or prevention of cardiovascular disorders, gastrointestinal and liver diseases, inflammatory diseases, hematological disorders, respiratory diseases, neurological disorders, urological disorders, thrombocytopenia and myeloma. The invention also features compounds which bind to and/or activate or inhibit the activity of EDG6 as well as pharmaceutical compositions comprising such compounds.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/002731

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01N33/566

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, EMBASE, BIOSIS, Sequence Search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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L	DATABASE AAGENESEQ 4 March 2003 (2003-03-04), XP002307015 Database accession no. ABP82007 Document cited to provide information on the relevant sequence disclosed in WO-A-02/61087 abstract	19-26
X	& WO-02/061087 A (ROUSH CHRISTINE L ; BROWN JOSEPH P (US); BURMER GLENNA C (US); LIFESPA) 8 August 2002 (2002-08-08) Seq Id No 502. ----- -/--	19-26



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

23 November 2004

Date of mailing of the international search report

19. 04. 2005

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INTERNATIONAL SEARCH REPORT

International Publication No

PCT/EP2004/002731

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PYNE S ET AL: "REVIEW ARTICLE SPHINGOSINE 1-PHOSPHATE SIGNALLING IN MAMMALIAN CELLS" BIOCHEMICAL JOURNAL, THE BIOCHEMICAL SOCIETY, LONDON, GB, vol. 349, 2000, pages 385-402, XP000939036 ISSN: 0264-6021	19-26
A	abstract page 397, right-hand column, paragraph 3 - page 398, left-hand column, paragraph 3 -----	1-18
X	RACKE K ET AL: "Potential role of EDG receptors and lysophospholipids as their endogenous ligands in the respiratory tract" PULMONARY PHARMACOLOGY AND THERAPEUTICS, ACADEMIC PRESS, NEW YORK, NY, US, vol. 13, no. 3, 2000, pages 99-114, XP002277298 ISSN: 1094-5539 abstract page 109, left-hand column, paragraph 3 - right-hand column, paragraph 1; table 1 -----	19-26
X	GRAELER M H ET AL: "Cellular functions of the lymphoid-specific sphingosine 1-phosphate binding receptor EDG6" IMMUNOBIOLOGY, vol. 203, no. 1-2, November 2000 (2000-11), page 111, XP009039072 & JOINT ANNUAL MEETING OF THE GERMAN AND DUTCH SOCIETIES OF IMMUNOLOGY; DUSELDORF, GERMANY; NOVEMBER 29-DECEMBER 02, 2000 ISSN: 0171-2985 abstract -----	19-26
L	DATABASE AAGENESEQ 29 July 2004 (2004-07-29), XP002307016 Database accession no. AD029295 Document cited to provide information on the relevant sequence disclosed in WO2004/040000 abstract	1-26
E	& WO 2004/040000 A (GAITANARIS GEORGE A ; MCILWAIN KELLIE L (US); MADISEN LINDA (US); BERG) 13 May 2004 (2004-05-13) page 7 - page 8; claims 37-42; tables 6,7 -----	1-26

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/002731

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claim 26 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-26 (all partially)

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-26 (all partially)

Methods of screening for therapeutical agents useful in the treatment of Alzheimer's and methods of diagnosing said disease using as target EDG6, as well as pharmaceutical compositions comprising EDG6 polynucleotide or polypeptide.

2. claims: 1-26 (all partially)

Methods of screening for therapeutical agents useful in the treatment of spleen (liver?) cirrohsis (?) and methods of diagnosing said disease using as target EDG6, as well as pharmaceutical compositions comprising EDG6 polynucleotide or polypeptide.

3. claims: 1-26 (all partially)

Methods of screening for therapeutical agents useful in the treatment of ileum chronic inflammation and methods of diagnosing said disease using as target EDG6, as well as pharmaceutical compositions comprising EDG6 polynucleotide or polypeptide.

4. claims: 1-26 (all partially)

Methods of screening for therapeutical agents useful in the treatment of liver cirrohsis and methods of diagnosing said disease using as target EDG6, as well as pharmaceutical compositions comprising EDG6 polynucleotide or polypeptide.

5. claims: 1-26 (all partially)

Methods of screening for therapeutical agents useful in the treatment of lung COPD and methods of diagnosing said disease using as target EDG6, as well as pharmaceutical compositions comprising EDG6 polynucleotide or polypeptide.

6. claims: 1-26 (all partially)

Methods of screening for therapeutical agents useful in the treatment of prostate tumour and methods of diagnosing said disease using as target EDG6, as well as pharmaceutical compositions comprising EDG6 polynucleotide or polypeptide.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/002731

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 02061087	A	08-08-2002	WO	02061087 A2	08-08-2002
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WO 2004040000	A	13-05-2004	AU	2003300776 A1	25-05-2004
			WO	2004040000 A2	13-05-2004
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